REPORT CONTROL SYMBOL NADC-13920-2

DTIC QUALITY INSPECTED 2

STATISTICAL REVIEW OF COUNTING ACCELEROMETER DATA FOR NAVY AND MARINE FLEET AIRCRAFT FROM 1 JAN 1962 TO 30 JUN 1977

19970605 010

Alan M. Kaniss
Aircraft and Crew Systems Technology Directorate
NAVAL AIR DEVELOPMENT CENTER
Warminster, Pennsylvania 18974

NADC Tech. Info.

1 NOVEMBER 1977

SEMI-ANNUAL SUMMARY REPORT
AIRTASK NO. A53530/202/78012-74-84
Work Unit No. DX 701

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.

8400394

Prepared for
NAVAL AIR SYSTEMS COMMAND
Department of the Navy
Washington, D.C. 20361

NOTICES

REPORT NUMBERING SYSTEM - The numbering of technical project reports issued by the Naval Air Development Center is arranged for specific identification purposes. Each number consists of the Center acronym, the calendar year in which the number was assigned, the sequence number of the report within the specific calendar year, and the official 2-digit correspondence code of the Command Office or the Functional Directorate responsible for the report. For example: Report No. NADC-78015-20 indicates the fifteenth Center report for the year 1978, and prepared by the Systems Directorate. The numerical codes are as follows:

CODE	OFFICE OR DIRECTORATE
00	Commander, Naval Air Development Center
01	Technical Director, Naval Air Development Center
02	Comptroller
10	Directorate Command Projects
20	Systems Directorate
30	Sensors & Avionics Technology Directorate
40	Communication & Navigation Technology Directorate
50	Software Computer Directorate
60	Aircraft & Crew Systems Technology Directorate
70	Planning Assessment Resources
80	Engineering Support Group

PRODUCT ENDORSEMENT - The discussion or instructions concerning commercial products herein do not constitute an endorsement by the Government nor do they convey or imply the license or right to use such products.

APPROVED BY: _____ DATE: 1 November 1977

M. PASSAGLIA, JR.
Captain, USN
Deputy Director, ACSTD

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE *(When Data Entered)*

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER RCS NADC 13920-2	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE *(and Subtitle)* Statistical Review of Counting Accelerometer Data for Navy and Marine Fleet Aircraft from 1 Jan 1962 to 30 Jun 77		5. TYPE OF REPORT & PERIOD COVERED Semi-Annual Summary Report from 1 Jan 1962 to 30 Jun 77 6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR*(s)* ALAN M. KANISS		8. CONTRACT OR GRANT NUMBER*(s)*
9. PERFORMING ORGANIZATION NAME AND ADDRESS Naval Air Development Center Aircraft and Crew Systems Technology Directorate Warminster, PA 18974		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS AIRTASK A53530/202/78012-74-84/Work Unit No. DX 701
11. CONTROLLING OFFICE NAME AND ADDRESS Naval Air Systems Command Department of the Navy Washington, D.C. 20361		12. REPORT DATE 1 November 1977 13. NUMBER OF PAGES 148
14. MONITORING AGENCY NAME & ADDRESS*(if different from Controlling Office)*		15. SECURITY CLASS. *(of this report)* UNCLASSIFIED 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT *(of this Report)*

Approved for public release; distribution unlimited

17. DISTRIBUTION STATEMENT *(of the abstract entered in Block 20, if different from Report)*

18. SUPPLEMENTARY NOTES

19. KEY WORDS *(Continue on reverse side if necessary and identify by block number)*

Counting Accelerometer Statistics; Calendar Time Separations; Training Navy; Combat Navy; Training Marine; Combat Marine

20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

This report is a specialized summary of normal acceleration data recorded by counting accelerometers. Data are separated by calendar time and mission category. Only data reported in the counting accelerometer program are included.

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE
S/N 0102-LF-014-6601

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE *(When Data Entered)*

SUMMARY

This is a semi-annual progress report, and it presents a specialized summary of the data in the counting accelerometer program. Statistics describing Navy and Marine aircraft cumulative g-count exceedances are calculated and tabulated. These tabulations are separated by calendar time and into four major categories of fleet experience: Navy Training, Navy Combat, Marine Training, and Marine Combat.

These data show that the load rate distributions (counts at 1000 hours) for most models and most g-levels have a non-normal distribution. Within a model (F-4B, F-8H, etc.),differences in the average load rates exist when data are separated by calendar time or mission category.

RCS NADC 13920-2

SPECIAL NOTES

1. This report supersedes and replaces all previous issues of this semi-annual report. Previous issue was report control symbol NADC-13920-2, dated 1 May 1977.

2. Additional copies of this report may be obtained from:

Administrator
Defense Documentation Center for Scientific
and Technical Information (DDC)
Building 5, Cameron Station
Alexandria, Virginia 22314

3. Any inquiries, questions, or additional information desired concerning the contents of this report shall be directed to:

Commander
Naval Air Development Center (Code 6082)
Warminster, Pennsylvania 18974
Area Code 215-441-2051
Autovon 441-2051

TABLE OF CONTENTS

	PAGE
SUMMARY	1
SPECIAL NOTES	2
INDEX OF CURRENTLY OPERATIONAL MODELS	4
INDEX OF OUT-OF-SERVICE MODELS AND MODELS WHICH HAVE NOT REPORTED COUNTING ACCELEROMETER DATA DURING THE PREVIOUS 12 MONTHS	6
LIST OF SYMBOLS	7
INTRODUCTION	9
DISCUSSION	10
TABLES	13
APPENDIX A - OUT-OF-SERVICE MODELS AND MODELS WHICH HAVE NOT REPORTED COUNTING ACCELEROMETER DATA DURING THE PREVIOUS 12 MONTHS	A-1
APPENDIX B - THE DETERMINATION OF SAMPLE STATISTICS FOR COUNTING ACCELEROMETER DATA	B-1

INDEX OF CURRENTLY OPERATIONAL MODELS

Model	Previous 12 Months Data	All Data
A-4F (Blue Angels) (NOTE 1)	PAGE 14	15
A-3B	16	17
KA-3B	18	19
A-4F	20	21
EA-4F	22	23
TA-4F	24	25
A-4G	26	27
TA-4G	28	29
TA-4J	30	31
A-4M	32	33
RA-5C	34	35
A-6A	36	37
EA-6A	38	39
NA-6A	40	41
A-6B	42	43
EA-6B	44	45
KA-6D	46	47
A-6E	48	49
A-7A	50	51
A-7B	52	53
A-7C	54	55
TA-7C	56	57
A-7E	58	59
A-7H	60	61
C-2A	62	63
F-4B	64	65
QF-4B	66	67
RF-4B	68	69
F-4J	70	71
F-4N	72	73
RF-8G	74	75
F-8J	76	77
DF-8J	78	79
DF-8L	80	81
P-3A	82	83
EP-3A	84	85
RP-3A	86	87
P-3B	88	89
EP-3B	90	91
P-3C	92	93
EP-3E	94	95

NOTE 1: TRANSDUCER LOAD-LEVEL RANGE (5-, 6-, 7-, 8-g)

RCS NADC 13920-2

INDEX OF CURRENTLY OPERATIONAL MODELS

Model	Previous 12 Months Data	All Data
ES-2D	PAGE 96	97
S-3A	98	99
T-2B	100	101
T-2C	102	103
T-28B	104	105
T-28C	106	107
T-34B	108	109
AV-8A	110	111

INDEX OF OUT-OF-SERVICE MODELS AND MODELS WHICH HAVE NOT REPORTED COUNTING ACCELEROMETER DATA DURING THE PREVIOUS 12 MONTHS (APPENDIX A)

Model	All Data
F-4J (Blue Angels)(NOTE 1)	A-2
F-11A (Blue Angels)(NOTE 2)	A-3
F-11A (Blue Angels)(NOTE 1)	A-4
A-1H	A-5
A-1J	A-6
EKA-3B	A-7
A-4B	A-8
TA-4B	A-9
A-5A	A-10
A-5B	A-11
A-6C	A-12
KC-130F	A-13
AF-1E	A-14
F-4A	A-15
TF-4A	A-16
F-6A	A-17
F-8A	A-18
RF-8A	A-19
TF-8A	A-20
F-8B	A-21
F-8C	A-22
F-8D	A-23
F-8E	A-24
DF-8F	A-25
F-8H	A-26
F-8K	A-27
F-8L	A-28
EF-10B	A-29
F-11A	A-30
WP-3A	A-31
S-2D	A-32
S-2E	A-33
S-2G	A-34
T-2A	A-35

NOTE 1: TRANSDUCER LOAD LEVEL RANGE (4-, 5-, 6-, 7-g)

2: TRANSDUCER LOAD LEVEL RANGE (6-, 7-, 8.5-, 10-g)

LIST OF SYMBOLS

MEAN OR $\bar{X}$	MEAN CUMULATIVE COUNTS PER 1000 HOURS
STD DEV OR S	STANDARD DEVIATION OF CUMULATIVE COUNTS PER 1000 HOURS
SKEWNESS OR A_3	SKEWNESS OF LOAD RATE DISTRIBUTION
*	NO DATA IN THIS CATEGORY
**	INSUFFICIENT DATA IN THIS CATEGORY

THIS PAGE INTENTIONALLY LEFT BLANK

INTRODUCTION

The NAVAIRDEVCEN (Naval Air Development Center) is engaged in various flight maneuver-loads programs as assigned by the Naval Air Systems Command. One of these is the counting accelerometer program, and under this program data have been collected and reported since 1955.

The primary purpose of this program is to provide the flight load history of individual Navy and Marine aircraft. Other purposes include, but are not limited to, the comparison of operational loads environment with structural design requirements, the comparison of load histories of one model with another, and the determination of expected loads environment of future models. More recently, however, these data are used as the major input in the NAVAIRDEVCEN Aircraft Structural Appraisal of Fatigue Effects Program in estimating structural fatigue damage for those aircraft which do not have counting accelerometer data.

DISCUSSION

This is a semi-annual progress report. Included are statistical summaries of counting accelerometer data for all Navy and Marine aircraft. In-service models appear in the main text. Out-of-service models or models which have not reported counting accelerometer data during the previous 12 months appear in Appendix A. The summary for each out-of-service model is its final summary. New models are added as their counting accelerometer data becomes available.

For each model, the following statistics are presented: (See Appendix B for the statistical procedures.)

$\bar{x}$ - the estimated mean load exceedances (counts at 1000 flt. hrs.) for each g-level recorded on the counting accelerometer.

S - estimated standard deviation (counts at 1000 flt. hrs.) of the load exceedances for each g-level.

A_3 - estimated skewness factor for the load exceedance distribution.

Two statistical summaries describing cumulative g-count exceedances and flight hours for each currently operational model are presented:

1. The first summary includes all quality-control accepted data reported in the time period comprising the terminal date of this report and the 12 months preceding that date.

2. The second includes all quality-control accepted data reported in the counting accelerometer program from the day each airplane was delivered for service to the terminal date of this report.

The first summary, which includes only the most recent 12 months, shows an indication of a model's current severity of usage. The second summary describes the severity of loads experienced by all airplanes of each model since acceptance. A comparison of the first summary with the second shows whether current usage for any model is more or less severe than usage over its full lifetime.

A further breakdown by mission category is provided for each airplane model in both of the aforementioned summaries. These categories are defined as follows:

1. Navy Training - an airplane in a Navy squadron assigned to a non-combat zone. (This includes all Navy airplanes not classified as being in a combat zone.)

2. Navy Combat - an airplane in a Navy squadron assigned to a combat zone.

3. Marine Training - an airplane in a Marine squadron assigned to a non-combat zone. (This includes all Marine airplanes not classified as being in a combat zone.)

4. Marine Combat - an airplane in a Marine squadron assigned to a combat zone.

The statistics for the A-4F Blue Angels are separated into solo aircraft and diamond formation aircraft. In the subsequent tables, the total flight hours shown for a given model are the sum of the hours reported for each category. However, summing the number of airplanes reported in each category can result in a number exceeding the total aircraft, because the same airplane may have seen service in two or more categories. Its data were separated for calculation of statistics for each respective category.

Some general statistical observations for fleet-wide loads data are the following:

1. The load exceedance distribution for many of the aircraft models is non-normal (particularly asymmetrical) at all the g-levels recorded. In general, the degree of asymmetry increases with increasing g-level.

2. The scatter measure $\frac{S}{\bar{x}}$ (coefficient of variation) increases with higher g-levels.

3. For a given g-level, there is more scatter in loads received during training than during combat.

4. Differences exist in loads frequency among various configurations of the same model and various mission categories within the same configuration.

THIS PAGE INTENTIONALLY LEFT BLANK

T A B L E S

Counting accelerometer data are subject to quality control criteria modifications. Thus, in succeeding reports, model-wide summary statistics are subject to change even though a model may no longer be in service.

DATA FROM
7-76 THRU 6-77

MODEL A-4F BLUE ANGELS

7 AIRCRAFT 1460 HOURS

SOLO

	PRACTICE	5.0G	6.0G	7.0G	8.0G
7 AIRCRAFT	MEAN	6206.69	1149.94	170.25	32.86
335 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	SHOW	5.0G	6.0G	7.0G	8.0G
4 AIRCRAFT	MEAN	13236.72	3613.53	782.61	154.59
104 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

DIAMOND

	PRACTICE	5.0G	6.0G	7.0G	8.0G
7 AIRCRAFT	MEAN	1014.10	184.61	36.17	2.49
802 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	SHOW	5.0G	6.0G	7.0G	8.0G
7 AIRCRAFT	MEAN	1907.15	487.03	159.31	22.76
220 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

ALL DATA
1-62 THRU 6-77

MODEL A-4F BLUE ANGELS

8 AIRCRAFT 5100 HOURS

SOLO

	PRACTICE	5.0G	6.0G	7.0G	8.0G
8 AIRCRAFT	MEAN	7857.00	2051.00	235.00	27.00
1197 HOURS	STD DEV	.00	.00	.00	.00
	SKEWNESS	.00	.00	.00	.00

	SHOW	5.0G	6.0G	7.0G	8.0G
8 AIRCRAFT	MEAN	12106.00	4852.00	960.00	123.00
375 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

DIAMOND

	PRACTICE	5.0G	6.0G	7.0G	8.0G
8 AIRCRAFT	MEAN	1129.00	256.00	50.00	7.00
2761 HOURS	STD DEV	.00	.00	.00	.00
	SKEWNESS	.00	.00	.00	.00

	SHOW	5.0G	6.0G	7.0G	8.0G
8 AIRCRAFT	MEAN	1786.00	534.00	159.00	25.00
768 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

DATA FROM
7-76 THRU 6-77

MODEL A-3B

1 AIRCRAFT 136 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
1 AIRCRAFT	MEAN	4373.16	.00	.00	.00
136 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL A-3B

80 AIRCRAFT 65692 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
80 AIRCRAFT	MEAN	702.47	176.87	51.84	7.94
56897 HOURS	STD DEV	403.68	111.56	36.55	9.63
	SKEWNESS	1.66	1.08	1.03	2.65

	COMBAT	2.0G	2.5G	3.0G	3.5G
25 AIRCRAFT	MEAN	564.20	121.21	27.39	5.04
8795 HOURS	STD DEV	249.09	75.35	25.68	6.67
	SKEWNESS	1.11	.98	1.64	2.05

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL KA-3B

10 AIRCRAFT 3295 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
10 AIRCRAFT	MEAN	162.65	4.20	1.62	.26
3295 HOURS	STD DEV	196.67	4.54	1.90	.56
	SKEWNESS	1.85	1.18	1.32	2.34

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL KA-3B

50 AIRCRAFT 46709 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
49 AIRCRAFT	MEAN	93.55	10.86	2.85	.75
43681 HOURS	STD DEV	138.36	16.55	5.28	2.30
	SKEWNESS	2.05	1.52	1.81	3.20

	COMBAT	2.0G	2.5G	3.0G	3.5G
11 AIRCRAFT	MEAN	172.44	30.93	5.69	.19
3028 HOURS	STD DEV	47.42	17.09	5.41	.59
	SKEWNESS	.51	1.14	.88	2.69

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

RCS NADC 13920-2

DATA FROM
7-76 THRU 6-77

MODEL A-4F

22 AIRCRAFT 5405 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
22 AIRCRAFT	MEAN	697.55	111.39	9.75	3.20
5248 HOURS	STD DEV	378.47	88.45	24.05	15.32
	SKEWNESS	1.58	2.31	3.16	4.14

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
3 AIRCRAFT	MEAN	94.08	94.08	.00	.00
156 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL A-4F

59 AIRCRAFT 46309 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
59 AIRCRAFT	MEAN	641.16	98.55	11.04	2.34
36026 HOURS	STD DEV	300.82	74.14	19.67	10.54
	SKEWNESS	-.21	1.39	3.87	5.09

	COMBAT	5.0G	6.0G	7.0G	8.0G
24 AIRCRAFT	MEAN	506.76	151.38	22.00	2.28
6016 HOURS	STD DEV	114.17	40.77	7.99	1.64
	SKEWNESS	-.21	.40	.27	1.23

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
9 AIRCRAFT	MEAN	729.25	133.42	14.91	3.21
4267 HOURS	STD DEV	257.10	63.21	8.55	2.01
	SKEWNESS	-.63	-.40	.37	1.04

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL EA-4F

2 AIRCRAFT 538 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
2 AIRCRAFT	MEAN	192.35	35.33	4.42	.00
538 HOURS	STD DEV	77.54	15.05	1.88	.00
	SKEWNESS	-.27	-.27	-.27	.00

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL EA-4F

3 AIRCRAFT 2182 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
3 AIRCRAFT	MEAN	185.37	25.44	3.32	.00
2182 HOURS	STD DEV	147.16	22.72	2.96	.00
	SKEWNESS	-.26	-.27	-.27	.00

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL TA-4F

20 AIRCRAFT 4763 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
17 AIRCRAFT	MEAN	170.31	23.28	1.14	.00
4361 HOURS	STD DEV	99.77	38.02	2.42	.00
	SKEWNESS	1.37	3.37	3.27	.00

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
3 AIRCRAFT	MEAN	179.68	8.07	.00	.00
402 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL TA-4F

163 AIRCRAFT 180872 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
141 AIRCRAFT	MEAN	170.02	20.73	1.91	.21
142474 HOURS	STD DEV	183.13	34.46	3.90	.84
	SKEWNESS	1.94	4.69	4.02	5.14

	COMBAT	5.0G	6.0G	7.0G	8.0G
8 AIRCRAFT	MEAN	564.76	58.22	3.34	.73
2158 HOURS	STD DEV	149.00	21.08	2.38	.52
	SKEWNESS	-.38	-.64	.97	.38

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
37 AIRCRAFT	MEAN	662.80	80.17	6.61	.78
36240 HOURS	STD DEV	420.89	96.62	11.56	2.16
	SKEWNESS	1.42	4.12	3.96	4.65

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL A-4G

6 AIRCRAFT 177 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
6 AIRCRAFT	MEAN	497.48	17.03	6.41	.00
177 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL A-4G

16 AIRCRAFT 15502 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
16 AIRCRAFT	MEAN	1978.65	316.40	36.62	5.30
15502 HOURS	STD DEV	491.41	110.99	15.52	4.06
	SKEWNESS	.10	-.04	.05	.84

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL TA-4G

2 AIRCRAFT 80 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
2 AIRCRAFT	MEAN	159.87	111.00	48.87	24.43
80 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL TA-4G

4 AIRCRAFT 4674 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
4 AIRCRAFT	MEAN	780.06	90.24	7.31	.95
4674 HOURS	STD DEV	107.06	8.76	2.96	3.05
	SKEWNESS	.02	-.38	1.01	1.03

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL TA-4J

297 AIRCRAFT 104039 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
296 AIRCRAFT	MEAN	263.81	31.67	4.57	.73
104029 HOURS	STD DEV	257.23	67.83	13.64	2.38
	SKEWNESS	7.20	12.46	13.01	8.07

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
1 AIRCRAFT	MEAN	.00	.00	.00	.00
11 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL TA-4J

378 AIRCRAFT 599298 HOURS

NAVY

		5.0G	6.0G	7.0G	8.0G
	TRAINING				
373 AIRCRAFT	MEAN	288.68	29.19	4.19	.85
583038 HOURS	STD DEV	241.00	53.97	14.03	4.48
	SKEWNESS	2.87	7.29	6.56	8.72

		5.0G	6.0G	7.0G	8.0G
	COMBAT				
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

		5.0G	6.0G	7.0G	8.0G
	TRAINING				
24 AIRCRAFT	MEAN	176.31	11.00	1.31	.86
16260 HOURS	STD DEV	77.02	10.42	4.69	3.96
	SKEWNESS	.57	1.29	4.16	4.28

		5.0G	6.0G	7.0G	8.0G
	COMBAT				
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL A-4M

77 AIRCRAFT 16171 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
4 AIRCRAFT	MEAN	627.33	60.80	10.75	2.76
628 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
73 AIRCRAFT	MEAN	576.19	67.08	12.88	2.36
15543 HOURS	STD DEV	214.10	54.15	16.54	4.66
	SKEWNESS	2.29	6.03	5.78	3.59

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL A-4M

100 AIRCRAFT 39091 HOURS

NAVY

		5.0G	6.0G	7.0G	8.0G
	TRAINING				
15 AIRCRAFT	MEAN	1569.47	283.05	48.36	7.74
2660 HOURS	STD DEV	628.92	255.90	54.56	2.56
	SKEWNESS	2.05	2.41	2.42	-.09

		5.0G	6.0G	7.0G	8.0G
	COMBAT				
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

		5.0G	6.0G	7.0G	8.0G
	TRAINING				
95 AIRCRAFT	MEAN	599.59	91.03	18.21	5.17
36431 HOURS	STD DEV	341.90	101.03	26.12	8.92
	SKEWNESS	1.52	3.62	3.22	3.17

		5.0G	6.0G	7.0G	8.0G
	COMBAT				
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL RA-5C

27 AIRCRAFT 7672 HOURS

NAVY

	TRAINING	3.0G	4.0G	5.0G	6.0G
27 AIRCRAFT	MEAN	107.20	6.74	.44	.00
7672 HOURS	STD DEV	41.12	7.04	.78	.00
	SKEWNESS	1.14	2.73	3.42	.00

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL RA-5C

129 AIRCRAFT 151383 HOURS

NAVY

	TRAINING	3.0G	4.0G	5.0G	6.0G
129 AIRCRAFT	MEAN	203.11	12.74	.99	.18
130518 HOURS	STD DEV	113.94	25.93	1.98	.67
	SKEWNESS	2.40	8.42	2.70	3.43

	COMBAT	3.0G	4.0G	5.0G	6.0G
94 AIRCRAFT	MEAN	931.07	99.95	13.46	.66
20865 HOURS	STD DEV	435.85	70.01	18.99	1.29
	SKEWNESS	3.15	3.41	6.42	3.66

MARINE

	TRAINING	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL A-6A

29 AIRCRAFT 5085 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
17 AIRCRAFT	MEAN	1089.80	348.72	55.89	1.43
2403 HOURS	STD DEV	170.96	74.22	19.15	1.49
	SKEWNESS	1.24	.87	1.32	1.83

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
13 AIRCRAFT	MEAN	1373.20	504.32	96.82	9.91
2682 HOURS	STD DEV	331.73	169.22	32.08	5.80
	SKEWNESS	.89	1.05	.73	1.61

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL A-6A

416 AIRCRAFT 397033 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
385 AIRCRAFT	MEAN	1277.38	410.70	67.23	6.16
232193 HOURS	STD DEV	455.67	216.43	55.68	8.75
	SKEWNESS	.77	1.71	3.40	6.71

	COMBAT	4.0G	5.0G	6.0G	7.0G
197 AIRCRAFT	MEAN	1081.91	451.75	110.41	13.06
38369 HOURS	STD DEV	267.48	153.44	56.44	7.62
	SKEWNESS	4.34	4.62	3.33	2.05

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
195 AIRCRAFT	MEAN	916.31	227.51	31.52	2.88
100031 HOURS	STD DEV	349.90	133.10	28.01	4.42
	SKEWNESS	.51	1.14	2.16	2.94

	COMBAT	4.0G	5.0G	6.0G	7.0G
77 AIRCRAFT	MEAN	457.85	149.86	23.43	1.37
26440 HOURS	STD DEV	211.51	110.44	21.43	3.45
	SKEWNESS	1.11	2.92	3.29	7.09

DATA FROM
7-76 THRU 6-77

MODEL EA-6A

14 AIRCRAFT 4194 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
14 AIRCRAFT	MEAN	13.58	.24	.07	.00
4194 HOURS	STD DEV	17.41	1.12	.50	.00
	SKEWNESS	1.15	2.63	3.30	.00

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL EA-6A

22 AIRCRAFT 25788 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
22 AIRCRAFT	MEAN	57.63	4.64	.36	.00
25350 HOURS	STD DEV	41.54	5.04	.64	.20
	SKEWNESS	.50	1.45	.94	4.37

	COMBAT	4.0G	5.0G	6.0G	7.0G
5 AIRCRAFT	MEAN	10.56	1.51	.00	.00
438 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

DATA FROM
7-76 THRU 6-77

MODEL NA-6A

6 AIRCRAFT 244 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
6 AIRCRAFT	MEAN	26.30	.00	.00	.00
244 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL NA-6A

8 AIRCRAFT 4662 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
8 AIRCRAFT	MEAN	100.83	18.47	3.52	1.07
4662 HOURS	STD DEV	106.74	30.44	6.51	1.41
	SKEWNESS	.89	1.12	1.06	1.07

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL A-6B

3 AIRCRAFT 324 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
3 AIRCRAFT	MEAN	412.46	109.53	12.02	.00
324 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL A-6B

18 AIRCRAFT 11964 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
18 AIRCRAFT	MEAN	523.51	127.72	17.36	2.84
10043 HOURS	STD DEV	155.98	53.34	14.34	4.97
	SKEWNESS	-.98	-.27	.96	2.28

	COMBAT	4.0G	5.0G	6.0G	7.0G
10 AIRCRAFT	MEAN	301.71	91.54	9.41	1.92
1921 HOURS	STD DEV	101.45	55.09	7.42	2.85
	SKEWNESS	.63	1.27	1.77	2.18

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL EA-6B

48 AIRCRAFT 13514 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
48 AIRCRAFT	MEAN	122.15	17.39	1.34	.07
13514 HOURS	STD DEV	44.96	12.93	2.02	.27
	SKEWNESS	.01	2.93	3.29	6.46

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL EA-6B

56 AIRCRAFT 53313 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
56 AIRCRAFT	MEAN	100.96	13.76	1.25	.17
53306 HOURS	STD DEV	50.54	16.37	3.69	.57
	SKEWNESS	1.51	2.59	4.21	3.46

	COMBAT	4.0G	5.0G	6.0G	7.0G
1 AIRCRAFT	MEAN	140.85	.00	.00	.00
7 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL KA-6D

53 AIRCRAFT 11244 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
53 AIRCRAFT	MEAN	36.39	4.64	2.97	.58
11244 HOURS	STD DEV	74.72	7.61	7.19	1.20
	SKEWNESS	6.26	5.81	6.44	5.98

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL KA-6D

70 AIRCRAFT 77174 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
70 AIRCRAFT	MEAN	34.52	3.48	.84	.09
68501 HOURS	STD DEV	78.81	6.04	3.04	.57
	SKEWNESS	5.81	3.83	6.29	5.47

	COMBAT	4.0G	5.0G	6.0G	7.0G
33 AIRCRAFT	MEAN	21.77	3.62	.87	.00
8673 HOURS	STD DEV	16.23	4.15	1.69	.00
	SKEWNESS	1.12	2.44	3.54	.00

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

RCS NADC 13920-2

DATA FROM
7-76 THRU 6-77

MODEL A-6E

211 AIRCRAFT 47272 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
157 AIRCRAFT	MEAN	1010.10	240.21	24.95	2.77
33648 HOURS	STD DEV	309.86	111.62	20.42	3.81
	SKEWNESS	.79	2.41	4.21	4.29

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
60 AIRCRAFT	MEAN	602.53	112.41	14.94	3.80
13624 HOURS	STD DEV	146.20	45.25	10.39	4.45
	SKEWNESS	1.26	2.50	1.87	3.80

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL A-6E

251 AIRCRAFT 145365 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
210 AIRCRAFT	MEAN	1111.48	279.94	31.98	3.54
111537 HOURS	STD DEV	413.79	138.53	26.04	4.28
	SKEWNESS	.80	1.26	1.75	2.31

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
66 AIRCRAFT	MEAN	552.99	117.46	14.79	2.20
33829 HOURS	STD DEV	147.69	56.95	16.01	3.53
	SKEWNESS	.16	.92	2.76	3.05

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

RCS NADC 13920-2

DATA FROM
7-76 THRU 6-77

MODEL A-7A

55 AIRCRAFT 14579 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
55 AIRCRAFT	MEAN	881.16	276.36	30.73	1.92
14579 HOURS	STD DEV	311.05	185.26	56.67	4.92
	SKEWNESS	1.26	2.93	6.02	6.12

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL A-7A

194 AIRCRAFT 309681 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
194 AIRCRAFT	MEAN	1045.13	233.76	27.74	2.61
245006 HOURS	STD DEV	446.67	152.05	35.77	4.50
	SKEWNESS	.25	1.71	5.23	4.05

	COMBAT	5.0G	6.0G	7.0G	8.0G
133 AIRCRAFT	MEAN	765.97	242.17	32.86	2.62
64675 HOURS	STD DEV	157.84	77.57	15.90	2.44
	SKEWNESS	.21	1.61	.86	1.77

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL A-7B

37 AIRCRAFT 7932 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
37 AIRCRAFT	MEAN	837.83	176.32	13.42	2.65
7932 HOURS	STD DEV	234.56	82.52	14.94	10.10
	SKEWNESS	1.20	2.13	2.93	4.81

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL A-7B

111 AIRCRAFT 96607 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
110 AIRCRAFT	MEAN	1049.77	290.34	35.61	6.18
87449 HOURS	STD DEV	376.43	160.03	41.20	13.37
	SKEWNESS	.78	.57	2.54	4.91

	COMBAT	5.0G	6.0G	7.0G	8.0G
28 AIRCRAFT	MEAN	1319.99	433.55	57.57	4.08
9158 HOURS	STD DEV	351.35	117.24	33.17	4.58
	SKEWNESS	.01	.85	3.00	3.58

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL A-7C

18 AIRCRAFT 3854 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
18 AIRCRAFT	MEAN	1178.04	375.11	93.78	3.04
3854 HOURS	STD DEV	744.68	340.32	112.67	3.90
	SKEWNESS	1.43	2.46	2.99	3.05

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL A-7C

45 AIRCRAFT 42228 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
44 AIRCRAFT	MEAN	1123.40	224.21	26.49	3.70
34641 HOURS	STD DEV	637.09	186.04	43.99	6.80
	SKEWNESS	.45	1.69	3.45	3.76

	COMBAT	5.0G	6.0G	7.0G	8.0G
22 AIRCRAFT	MEAN	660.69	151.23	17.98	2.11
7587 HOURS	STD DEV	175.62	43.50	18.49	12.62
	SKEWNESS	1.49	.70	3.53	4.31

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL TA-7C

6 AIRCRAFT 340 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
6 AIRCRAFT	MEAN	714.31	247.60	.10	.05
340 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL TA-7C

18 AIRCRAFT 542 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
18 AIRCRAFT	MEAN	732.68	233.89	3.29	.04
542 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

RCS NADC 13920-2

DATA FROM
7-76 THRU 6-77

MODEL A-7E

295 AIRCRAFT 88394 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
295 AIRCRAFT	MEAN	758.12	118.53	8.92	.80
88394 HOURS	STD DEV	370.41	119.55	29.67	2.34
	SKEWNESS	3.81	10.53	13.81	6.62

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL A-7E

355 AIRCRAFT 316303 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
355 AIRCRAFT	MEAN	669.89	100.15	7.24	1.00
308135 HOURS	STD DEV	352.71	94.65	25.13	3.99
	SKEWNESS	1.83	5.23	11.43	6.31

	COMBAT	5.0G	6.0G	7.0G	8.0G
37 AIRCRAFT	MEAN	315.03	61.92	4.84	.68
8168 HOURS	STD DEV	60.51	19.82	2.91	1.06
	SKEWNESS	.04	.26	1.67	4.35

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL A-7H

20 AIRCRAFT 235 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
20 AIRCRAFT	MEAN	519.20	255.65	8.59	.00
235 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL A-7H

41 AIRCRAFT 460 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
41 AIRCRAFT	MEAN	438.02	183.86	16.92	3.87
460 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL C-2A

4 AIRCRAFT 1693 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
4 AIRCRAFT	MEAN	23.29	1.08	.00	.00
1693 HOURS	STD DEV	13.95	.92	.00	.00
	SKEWNESS	-.01	.31	.00	.00

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL C-2A

17 AIRCRAFT 50701 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
17 AIRCRAFT	MEAN	47.46	14.18	5.95	1.51
50701 HOURS	STD DEV	61.26	25.96	12.46	3.64
	SKEWNESS	2.05	2.33	2.20	1.96

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL F-4B

19 AIRCRAFT 1636 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
19 AIRCRAFT	MEAN	2756.97	796.02	261.56	76.62
1636 HOURS	STD DEV	967.43	287.11	117.95	43.80
	SKEWNESS	.74	.44	1.22	2.35

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL F-4B

611 AIRCRAFT 870959 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
573 AIRCRAFT	MEAN	1916.56	665.81	190.76	46.48
452032 HOURS	STD DEV	1115.16	506.91	210.99	75.08
	SKEWNESS	1.86	2.15	3.29	5.40

	COMBAT	4.0G	5.0G	6.0G	7.0G
291 AIRCRAFT	MEAN	1137.73	405.31	129.20	31.32
108405 HOURS	STD DEV	372.90	132.70	67.31	31.02
	SKEWNESS	2.98	1.94	4.10	8.73

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
336 AIRCRAFT	MEAN	2308.28	749.06	184.98	40.80
203787 HOURS	STD DEV	1197.25	522.21	193.15	60.69
	SKEWNESS	1.25	1.61	2.08	3.35

	COMBAT	4.0G	5.0G	6.0G	7.0G
226 AIRCRAFT	MEAN	2221.18	864.39	225.90	47.53
106735 HOURS	STD DEV	695.10	341.03	155.65	51.23
	SKEWNESS	1.47	1.22	2.23	4.40

DATA FROM
7-76 THRU 6-77

MODEL QF-4B

4 AIRCRAFT 146 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
4 AIRCRAFT	MEAN	661.59	133.30	25.19	.00
146 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL QF-4B

9 AIRCRAFT 477 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
9 AIRCRAFT	MEAN	915.02	225.68	43.35	5.41
477 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL RF-4B

18 AIRCRAFT 2601 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
18 AIRCRAFT	MEAN	604.37	183.44	47.36	14.08
2601 HOURS	STD DEV	187.50	97.54	49.49	19.56
	SKEWNESS	1.30	2.63	3.46	3.57

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL RF-4B

46 AIRCRAFT 68251 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
46 AIRCRAFT	MEAN	359.89	90.59	21.64	5.64
60236 HOURS	STD DEV	269.77	93.23	32.12	12.90
	SKEWNESS	.55	1.79	2.39	3.45

	COMBAT	4.0G	5.0G	6.0G	7.0G
16 AIRCRAFT	MEAN	1087.24	210.75	41.81	8.94
8015 HOURS	STD DEV	405.94	78.46	26.06	5.37
	SKEWNESS	1.58	1.80	2.18	1.10

DATA FROM
7-76 THRU 6-77

MODEL F-4J

279 AIRCRAFT 45549 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
169 AIRCRAFT	MEAN	3140.03	1236.57	373.63	75.22
28903 HOURS	STD DEV	971.25	480.84	205.10	50.02
	SKEWNESS	1.12	1.32	2.58	2.33

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
113 AIRCRAFT	MEAN	3710.97	1258.43	331.13	94.99
16645 HOURS	STD DEV	761.00	292.64	111.77	58.60
	SKEWNESS	.00	.25	1.37	2.84

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL F-4J

470 AIRCRAFT 592908 HOURS

NAVY

		4.0G	5.0G	6.0G	7.0G
	TRAINING				
439 AIRCRAFT	MEAN	2995.64	1135.00	342.95	79.85
359836 HOURS	STD DEV	1680.12	796.67	319.45	99.83
	SKEWNESS	.73	.91	1.60	2.45

		4.0G	5.0G	6.0G	7.0G
	COMBAT				
177 AIRCRAFT	MEAN	1118.00	458.21	137.81	34.71
53694 HOURS	STD DEV	341.12	157.31	64.39	36.91
	SKEWNESS	1.82	2.85	2.67	4.36

MARINE

		4.0G	5.0G	6.0G	7.0G
	TRAINING				
236 AIRCRAFT	MEAN	4549.17	1703.86	525.84	147.06
169567 HOURS	STD DEV	1583.52	639.70	289.83	116.65
	SKEWNESS	.86	.95	1.18	1.92

		4.0G	5.0G	6.0G	7.0G
	COMBAT				
49 AIRCRAFT	MEAN	2810.13	1314.14	413.55	76.73
9810 HOURS	STD DEV	623.07	264.93	170.83	47.63
	SKEWNESS	2.54	2.24	1.87	1.60

DATA FROM
7-76 THRU 6-77

MODEL F-4N

128 AIRCRAFT 19935 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
93 AIRCRAFT	MEAN	2514.87	1020.97	261.82	36.54
14884 HOURS	STD DEV	870.24	422.56	128.23	19.47
	SKEWNESS	1.72	1.65	2.27	1.87

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
36 AIRCRAFT	MEAN	4927.70	1553.21	301.22	39.49
5051 HOURS	STD DEV	452.48	197.93	103.18	16.20
	SKEWNESS	1.88	3.13	4.40	3.10

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL F-4N

166 AIRCRAFT 61499 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
124 AIRCRAFT	MEAN	2811.37	1244.97	390.65	77.33
43409 HOURS	STD DEV	1114.01	515.60	171.68	44.29
	SKEWNESS	2.31	1.79	1.30	1.90

	COMBAT	4.0G	5.0G	6.0G	7.0G
7 AIRCRAFT	MEAN	1282.91	537.08	162.76	35.94
189 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
50 AIRCRAFT	MEAN	4158.15	1533.59	415.91	76.07
17902 HOURS	STD DEV	981.89	523.19	236.82	57.32
	SKEWNESS	1.10	1.62	1.75	1.81

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL RF-8G

20 AIRCRAFT 4265 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
20 AIRCRAFT	MEAN	180.61	34.92	6.79	1.08
4265 HOURS	STD DEV	125.03	26.53	6.75	1.62
	SKEWNESS	1.81	1.72	1.75	1.97

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL RF-8G

43 AIRCRAFT 39527 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
43 AIRCRAFT	MEAN	375.61	106.69	24.71	3.52
38335 HOURS	STD DEV	273.77	91.95	24.53	6.79
	SKEWNESS	.56	1.00	1.36	4.81

	COMBAT	4.0G	5.0G	6.0G	7.0G
11 AIRCRAFT	MEAN	1481.32	391.60	63.37	8.37
1192 HOURS	STD DEV	387.16	90.25	26.29	5.98
	SKEWNESS	1.13	1.89	1.75	1.30

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL F-8J

5 AIRCRAFT 75 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
5 AIRCRAFT	MEAN	336.77	103.81	.00	.00
75 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL F-8J

134 AIRCRAFT 128061 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
134 AIRCRAFT	MEAN	2136.56	647.44	121.77	15.13
100967 HOURS	STD DEV	726.40	267.53	63.60	18.24
	SKEWNESS	.89	.70	1.18	6.90

	COMBAT	4.0G	5.0G	6.0G	7.0G
93 AIRCRAFT	MEAN	769.47	258.14	55.15	8.35
27094 HOURS	STD DEV	318.22	138.06	35.52	9.12
	SKEWNESS	2.48	2.94	2.90	3.75

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL DF-8J

1 AIRCRAFT 36 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
1 AIRCRAFT	MEAN	909.09	192.84	27.55	.00
36 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL DF-8J

1 AIRCRAFT 36 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
1 AIRCRAFT	MEAN	909.09	192.84	27.55	.00
36 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL DF-8L

4 AIRCRAFT 167 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
4 AIRCRAFT	MEAN	1131.01	376.49	84.27	.00
167 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL DF-8L

5 AIRCRAFT 2081 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
5 AIRCRAFT	MEAN	657.85	168.35	25.46	2.33
2081 HOURS	STD DEV	217.60	54.39	8.30	2.57
	SKEWNESS	-.29	-.40	-.08	.77

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL P-3A

107 AIRCRAFT 48602 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
107 AIRCRAFT	MEAN	22.51	.18	.04	.00
48602 HOURS	STD DEV	113.48	.78	.43	.00
	SKEWNESS	9.83	5.94	10.14	.00

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL P-3A

151 AIRCRAFT 948604 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
151 AIRCRAFT	MEAN	17.56	1.41	.18	.02
857277 HOURS	STD DEV	83.12	4.39	1.41	.26
	SKEWNESS	8.66	6.02	9.32	6.53

	COMBAT	2.0G	2.5G	3.0G	3.5G
100 AIRCRAFT	MEAN	12.22	1.09	.08	.01
91328 HOURS	STD DEV	14.99	2.36	.41	.10
	SKEWNESS	2.82	2.43	3.98	9.80

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL EP-3A

2 AIRCRAFT 445 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
2 AIRCRAFT	MEAN	.00	.00	.00	.00
445 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL EP-3A

2 AIRCRAFT 1286 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
2 AIRCRAFT	MEAN	.93	.93	.93	.00
1286 HOURS	STD DEV	.38	.38	.38	.00
	SKEWNESS	-.42	-.42	-.42	.00

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL RP-3A

3 AIRCRAFT 2866 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
3 AIRCRAFT	MEAN	3.33	.00	.00	.00
2866 HOURS	STD DEV	5.41	.00	.00	.00
	SKEWNESS	.17	.00	.00	.00

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL RP-3A

3 AIRCRAFT 7657 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
3 AIRCRAFT	MEAN	4.06	.32	.16	.00
7657 HOURS	STD DEV	4.53	.61	.31	.00
	SKEWNESS	-.07	.04	.04	.00

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

RCS NADC 13920-2

DATA FROM
7-76 THRU 6-77

MODEL P-3B

114 AIRCRAFT 80123 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
114 AIRCRAFT	MEAN	4.04	.43	.08	.02
80123 HOURS	STD DEV	5.46	.94	.33	.16
	SKEWNESS	3.57	3.44	4.82	7.26

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL P-3B

127 AIRCRAFT 839749 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
127 AIRCRAFT	MEAN	8.48	.76	.10	.03
752618 HOURS	STD DEV	22.07	1.98	.41	.26
	SKEWNESS	2.05	1.79	1.75	4.36

	COMBAT	2.0G	2.5G	3.0G	3.5G
78 AIRCRAFT	MEAN	4.90	.44	.03	.01
87131 HOURS	STD DEV	5.51	.82	.15	.11
	SKEWNESS	.66	2.77	5.63	8.38

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL EP-3B

2 AIRCRAFT 2111 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
2 AIRCRAFT	MEAN	.00	.00	.00	.00
2111 HOURS	STD DEV	.00	.00	.00	.00
	SKEWNESS	.00	.00	.00	.00

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL EP-3B

2 AIRCRAFT 21353 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
2 AIRCRAFT	MEAN	2.02	.00	.00	.00
12575 HOURS	STD DEV	2.20	.00	.00	.00
	SKEWNESS	-.05	.00	.00	.00

	COMBAT	2.0G	2.5G	3.0G	3.5G
2 AIRCRAFT	MEAN	4.75	.54	.00	.00
8778 HOURS	STD DEV	6.34	.97	.00	.00
	SKEWNESS	-.26	-.26	.00	.00

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL P-3C

126 AIRCRAFT 73060 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
126 AIRCRAFT	MEAN	3.68	.87	.52	.23
73060 HOURS	STD DEV	4.48	2.71	2.30	.97
	SKEWNESS	2.48	5.30	7.57	5.71

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL P-3C

131 AIRCRAFT 281088 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
131 AIRCRAFT	MEAN	3.26	.60	.26	.14
280753 HOURS	STD DEV	7.14	2.94	1.77	1.26
	SKEWNESS	2.84	5.71	5.42	8.95

	COMBAT	2.0G	2.5G	3.0G	3.5G
2 AIRCRAFT	MEAN	.00	.00	.00	.00
335 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL EP-3E

10 AIRCRAFT 7565 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
10 AIRCRAFT	MEAN	1.88	.32	.32	.16
7565 HOURS	STD DEV	2.15	.70	.70	.35
	SKEWNESS	.84	1.95	1.95	1.95

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL EP-3E

10 AIRCRAFT 23040 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
10 AIRCRAFT	MEAN	1.90	.05	.03	.01
23040 HOURS	STD DEV	2.42	.48	.44	.22
	SKEWNESS	.08	2.07	2.64	2.64

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

RCS NADC 13920-2

DATA FROM
7-76 THRU 6-77

MODEL ES-2D

5 AIRCRAFT 1333 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
5 AIRCRAFT	MEAN	.54	.00	.00	.00
1333 HOURS	STD DEV	.91	.00	.00	.00
	SKEWNESS	1.28	.00	.00	.00

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL ES-2D

7 AIRCRAFT 9612 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
7 AIRCRAFT	MEAN	6.75	.88	.24	.00
9612 HOURS	STD DEV	10.01	1.07	.36	.00
	SKEWNESS	.73	.32	.18	.00

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL S-3A

105 AIRCRAFT 31219 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
105 AIRCRAFT	MEAN	1322.09	452.67	123.69	30.95
31219 HOURS	STD DEV	468.28	193.11	57.72	19.06
	SKEWNESS	-1.16	.32	.29	1.29

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL S-3A

139 AIRCRAFT 52902 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
139 AIRCRAFT	MEAN	1394.25	468.03	124.10	31.39
52902 HOURS	STD DEV	585.61	226.54	64.69	18.68
	SKEWNESS	1.40	1.35	1.14	1.23

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL T-28

2 AIRCRAFT 193 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
2 AIRCRAFT	MEAN	35.04	.00	.00	.00
193 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL T-2B

90 AIRCRAFT 155114 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
90 AIRCRAFT	MEAN	215.94	24.26	2.51	.38
155114 HOURS	STD DEV	244.52	38.79	4.09	.79
	SKEWNESS	3.00	3.71	3.42	1.63

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL T-2C

157 AIRCRAFT 58769 HOURS

NAVY

	TRAINING	5.0G	6.0G	7.0G	8.0G
157 AIRCRAFT	MEAN	114.16	11.91	1.53	.27
58769 HOURS	STD DEV	72.60	9.03	2.88	1.56
	SKEWNESS	1.44	1.58	4.03	8.72

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL T-2C

180 AIRCRAFT 167812 HOURS

NAVY

		TRAINING	5.0G	6.0G	7.0G	8.0G
180 AIRCRAFT		MEAN	105.39	10.58	1.57	.21
167812 HOURS		STD DEV	107.85	10.86	3.56	1.08
		SKEWNESS	2.07	1.72	5.36	6.54

		COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT		MEAN	*	*	*	*
0 HOURS		STD DEV	*	*	*	*
		SKEWNESS	*	*	*	*

MARINE

		TRAINING	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT		MEAN	*	*	*	*
0 HOURS		STD DEV	*	*	*	*
		SKEWNESS	*	*	*	*

		COMBAT	5.0G	6.0G	7.0G	8.0G
0 AIRCRAFT		MEAN	*	*	*	*
0 HOURS		STD DEV	*	*	*	*
		SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL T-28B

53 AIRCRAFT 25235 HOURS

NAVY

	TRAINING	3.0G	4.0G	5.0G	6.0G
53 AIRCRAFT	MEAN	316.53	32.91	1.00	.11
25235 HOURS	STD DEV	228.15	44.40	1.49	.44
	SKEWNESS	.25	4.26	1.99	5.40

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL T-28B

118 AIRCRAFT 489123 HOURS

NAVY

	TRAINING	3.0G	4.0G	5.0G	6.0G
118 AIRCRAFT	MEAN	352.54	43.47	4.22	.33
489123 HOURS	STD DEV	611.39	108.55	20.82	2.31
	SKEWNESS	.95	2.35	5.24	5.68

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL T-28C

17 AIRCRAFT 7838 HOURS

NAVY

	TRAINING	3.0G	4.0G	5.0G	6.0G
17 AIRCRAFT	MEAN	219.13	20.85	1.24	.15
7838 HOURS	STD DEV	249.89	24.39	1.57	.35
	SKEWNESS	1.18	1.27	1.75	3.17

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL T-28C

57 AIRCRAFT 185794 HOURS

NAVY

	TRAINING	3.0G	4.0G	5.0G	6.0G
57 AIRCRAFT	MEAN	1008.51	129.41	7.48	.52
185794 HOURS	STD DEV	1169.03	176.54	11.33	1.56
	SKEWNESS	.01	.49	1.16	3.44

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL T-34B

23 AIRCRAFT 3025 HOURS

NAVY

	TRAINING	3.0G	4.0G	5.0G	6.0G
23 AIRCRAFT	MEAN	243.51	19.22	1.86	.00
3025 HOURS	STD DEV	277.67	17.85	2.07	.00
	SKEWNESS	3.07	2.32	2.68	.00

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL T-34B

77 AIRCRAFT 202447 HOURS

NAVY

	TRAINING	3.0G	4.0G	5.0G	6.0G
77 AIRCRAFT	MEAN	1376.68	204.45	19.49	1.05
202447 HOURS	STD DEV	1496.15	246.86	24.66	4.43
	SKEWNESS	.04	.40	.83	7.06

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

DATA FROM
7-76 THRU 6-77

MODEL AV-8A

49 AIRCRAFT 6038 HOURS

MARINE

	TRAINING	-1.5 G	-.5 G	.25 G	2.5 G
49 AIRCRAFT	MEAN	3.70	49.89	1322.34	13441.42
6038 HOURS	STD DEV	1.99	18.52	207.25	1574.09
	SKEWNESS	1.56	3.22	1.12	-.07

		3.5 G	5.0 G	7.0 G	8.0 G
49 AIRCRAFT	MEAN	7305.59	1817.68	44.94	3.78
6038 HOURS	STD DEV	1003.81	349.83	23.26	3.13
	SKEWNESS	-.14	.21	3.23	3.72

MARINE

	COMBAT	-1.5 G	-.5 G	.25 G	2.5 G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

		3.5 G	5.0 G	7.0 G	8.0 G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 6-77

MODEL AV-8A

93 AIRCRAFT 35028 HOURS

MARINE

	TRAINING	-1.5G	-.5G	.25 G	2.5 G
93 AIRCRAFT	MEAN	3.87	40.37	958.08	11072.99
35028 HOURS	STD DEV	3.18	28.62	212.37	1693.47
	SKEWNESS	1.57	5.15	.61	-.35

		3.5 G	5.0 G	7.0G	8.0 G
93 AIRCRAFT	MEAN	5847.59	1373.42	26.09	2.04
35028 HOURS	STD DEV	983.25	283.86	16.07	1.95
	SKEWNESS	-.50	.00	2.32	2.05

MARINE

	COMBAT	-1.5 G	-.5 G	.25 G	2.5 G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

		3.5 G	5.0 G	7.0 G	8.0 G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX A

OUT-OF-SERVICE MODELS AND MODELS WHICH HAVE NOT REPORTED COUNTING ACCELEROMETER DATA DURING THE PREVIOUS 12 MONTHS

ALL DATA

MODEL F-4J BLUE ANGELS

14 AIRCRAFT 8102 HOURS

	DIAMOND	6.0G	7.0G	8.5G	10.0G
14 AIRCRAFT	MEAN	502.35	164.78	21.16	1.73
5418 HOURS	STD DEV	118.81	82.68	13.94	1.23
	SKEWNESS	.22	.78	.49	.53

	SOLO	6.0G	7.0G	8.5G	10.0G
10 AIRCRAFT	MEAN	2220.24	797.59	143.85	12.38
2684 HOURS	STD DEV	573.11	298.17	95.53	18.68
	SKEWNESS	-.30	-.05	1.55	2.40

		6.0G	7.0G	8.5G	10.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

		6.0G	7.0G	8.5G	10.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL F-11A BLUE ANGELS

12 AIRCRAFT 3744 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
12 AIRCRAFT	MEAN	5414.80	1826.99	520.71	188.84
3744 HOURS	STD DEV	2263.48	740.91	208.44	86.14
	SKEWNESS	-.39	-.65	-.79	-.37

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL F-11A BLUE ANGELS

11 AIRCRAFT 4400 HOURS

NAVY

	TRAINING	6.0G	7.0G	8.5G	10.0G
11 AIRCRAFT	MEAN	740.74	192.71	12.43	3.88
4400 HOURS	STD DEV	217.97	62.76	7.33	7.05
	SKEWNESS	.19	.26	.95	2.32

	COMBAT	6.0G	7.0G	8.5G	10.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	6.0G	7.0G	8.5G	10.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	6.0G	7.0G	8.5G	10.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL A-1H

28 AIRCRAFT 7290 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
22 AIRCRAFT	MEAN	263.05	94.29	6.31	.00
374 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	4.0G	5.0G	6.0G	7.0G
28 AIRCRAFT	MEAN	322.42	89.29	14.84	.00
6916 HOURS	STD DEV	77.52	27.19	6.46	.00
	SKEWNESS	1.14	1.22	1.07	.00

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL A-1J

4 AIRCRAFT 917 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
1 AIRCRAFT	MEAN	.00	.00	.00	.00
32 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	4.0G	5.0G	6.0G	7.0G
4 AIRCRAFT	MEAN	306.82	125.89	17.28	.00
885 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL EKA-3B

20 AIRCRAFT 9742 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
19 AIRCRAFT	MEAN	354.19	65.33	21.52	3.53
8334 HOURS	STD DEV	289.18	60.88	23.25	4.26
	SKEWNESS	.85	1.77	1.98	1.96

	COMBAT	2.0G	2.5G	3.0G	3.5G
5 AIRCRAFT	MEAN	99.38	6.56	.00	.00
1408 HOURS	STD DEV	52.68	9.15	.00	.00
	SKEWNESS	.71	1.36	.00	.00

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL A-4B

58 AIRCRAFT 23177 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
55 AIRCRAFT	MEAN	681.15	238.03	49.07	7.87
20376 HOURS	STD DEV	358.28	164.65	46.69	9.80
	SKEWNESS	.67	1.04	2.09	2.14

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
8 AIRCRAFT	MEAN	268.45	64.34	10.94	.99
2800 HOURS	STD DEV	245.06	92.00	18.99	1.89
	SKEWNESS	.55	1.39	1.73	1.67

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL TA-4B

10 AIRCRAFT 3976 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
10 AIRCRAFT	MEAN	745.68	292.32	83.97	13.39
3976 HOURS	STD DEV	480.64	221.15	68.00	17.49
	SKEWNESS	-.03	.26	.92	1.49

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL A-5A

30 AIRCRAFT 11790 HOURS

NAVY

	TRAINING	3.0G	4.0G	5.0G	6.0G
30 AIRCRAFT	MEAN	579.58	128.26	9.04	.89
11790 HOURS	STD DEV	487.22	42.19	4.68	1.00
	SKEWNESS	4.57	.57	.75	1.63

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL A-5B

5 AIRCRAFT 985 HOURS

NAVY

	TRAINING	3.0G	4.0G	5.0G	6.0G
5 AIRCRAFT	MEAN	125.50	13.83	1.01	.00
985 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

RCS NADC 13920-2

ALL DATA

MODEL A-6C

12 AIRCRAFT 7282 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
12 AIRCRAFT	MEAN	960.17	311.66	15.27	.89
6983 HOURS	STD DEV	460.22	159.61	13.07	.77
	SKEWNESS	-.10	-.38	.37	.36

	COMBAT	4.0G	5.0G	6.0G	7.0G
3 AIRCRAFT	MEAN	581.03	302.66	58.59	9.70
299 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL KC-130F

12 AIRCRAFT 17648 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
12 AIRCRAFT	MEAN	6.76	.42	.08	.00
17648 HOURS	STD DEV	5.79	.51	.22	.00
	SKEWNESS	-.38	.30	1.82	.00

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL AF-1E

21 AIRCRAFT 4527 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
21 AIRCRAFT	MEAN	563.04	125.53	22.27	3.60
4527 HOURS	STD DEV	200.25	52.92	16.14	4.72
	SKEWNESS	.29	.61	1.63	2.00

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL F-4A

27 AIRCRAFT 17193 HOURS

NAVY

		TRAINING	4.0G	5.0G	6.0G	7.0G
27 AIRCRAFT		MEAN	794.95	261.01	66.29	11.89
17193 HOURS		STD DEV	275.55	127.26	42.65	8.70
		SKEWNESS	.09	.33	.71	1.19

		COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT		MEAN	*	*	*	*
0 HOURS		STD DEV	*	*	*	*
		SKEWNESS	*	*	*	*

MARINE

		TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT		MEAN	*	*	*	*
0 HOURS		STD DEV	*	*	*	*
		SKEWNESS	*	*	*	*

		COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT		MEAN	*	*	*	*
0 HOURS		STD DEV	*	*	*	*
		SKEWNESS	*	*	*	*

ALL DATA

MODEL TF-4A

4 AIRCRAFT 433 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
4 AIRCRAFT	MEAN	135.48	23.72	3.32	.00
433 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL F-6A

46 AIRCRAFT 17986 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
29 AIRCRAFT	MEAN	190.91	25.88	1.99	.20
12399 HOURS	STD DEV	143.14	29.94	2.18	.75
	SKEWNESS	2.41	2.60	1.96	2.92

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
26 AIRCRAFT	MEAN	147.15	17.74	.53	.00
5587 HOURS	STD DEV	32.97	7.42	.68	.00
	SKEWNESS	1.24	.80	2.11	.00

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL F-8A

48 AIRCRAFT 33043 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
48 AIRCRAFT	MEAN	678.64	171.70	32.28	5.44
33043 HOURS	STD DEV	330.20	100.28	22.83	4.33
	SKEWNESS	.32	.50	.75	1.38

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL RF-8A

28 AIRCRAFT 20290 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
23 AIRCRAFT	MEAN	317.32	80.22	13.37	2.05
15203 HOURS	STD DEV	120.58	36.11	7.56	1.88
	SKEWNESS	.56	.52	.61	1.90

	COMBAT	4.0G	5.0G	6.0G	7.0G
4 AIRCRAFT	MEAN	221.00	34.00	5.73	5.73
355 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
10 AIRCRAFT	MEAN	151.04	28.24	4.41	.56
4726 HOURS	STD DEV	49.30	13.23	3.03	.99
	SKEWNESS	-.68	.20	.42	1.68

	COMBAT	4.0G	5.0G	6.0G	7.0G
1 AIRCRAFT	MEAN	.00	.00	.00	.00
6 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

ALL DATA

MODEL TF-8A

30 AIRCRAFT 4924 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
30 AIRCRAFT	MEAN	1274.72	393.67	82.63	14.88
4924 HOURS	STD DEV	354.70	139.02	33.41	6.09
	SKEWNESS	.88	2.10	2.48	.98

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL F-8B

53 AIRCRAFT 40015 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
46 AIRCRAFT	MEAN	813.00	203.68	34.52	3.65
29272 HOURS	STD DEV	316.12	100.90	23.43	3.94
	SKEWNESS	.99	1.13	1.73	2.98

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
36 AIRCRAFT	MEAN	778.09	148.63	19.24	2.49
10743 HOURS	STD DEV	188.70	53.00	9.18	2.34
	SKEWNESS	1.26	1.68	1.46	2.06

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL F-8C

87 AIRCRAFT 76054 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
78 AIRCRAFT	MEAN	875.42	217.67	38.78	4.89
53012 HOURS	STD DEV	534.39	164.74	37.06	6.76
	SKEWNESS	1.20	1.14	1.60	2.57

	COMBAT	4.0G	5.0G	6.0G	7.0G
11 AIRCRAFT	MEAN	848.92	194.84	49.77	6.46
1689 HOURS	STD DEV	575.01	119.04	27.36	6.78
	SKEWNESS	.22	.30	.17	1.45

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
37 AIRCRAFT	MEAN	1217.83	346.89	67.32	10.17
20851 HOURS	STD DEV	370.14	107.60	22.36	4.73
	SKEWNESS	1.83	1.60	1.66	.05

	COMBAT	4.0G	5.0G	6.0G	7.0G
11 AIRCRAFT	MEAN	748.69	333.97	61.52	9.71
502 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

ALL DATA

MODEL F-8D

101 AIRCRAFT 70988 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
93 AIRCRAFT	MEAN	1176.54	326.40	68.29	11.47
49588 HOURS	STD DEV	490.92	154.19	37.61	7.70
	SKEWNESS	.55	.48	.72	1.25

	COMBAT	4.0G	5.0G	6.0G	7.0G
15 AIRCRAFT	MEAN	1380.67	394.15	107.24	22.87
1060 HOURS	STD DEV	468.87	79.59	21.81	6.83
	SKEWNESS	2.59	.29	.19	.71

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
46 AIRCRAFT	MEAN	826.64	216.72	45.39	8.03
19583 HOURS	STD DEV	398.11	118.51	30.75	5.85
	SKEWNESS	.83	.90	1.13	1.50

	COMBAT	4.0G	5.0G	6.0G	7.0G
11 AIRCRAFT	MEAN	546.18	88.42	8.42	4.32
758 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

ALL DATA

MODEL F-8E

248 AIRCRAFT 198601 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
243 AIRCRAFT	MEAN	1994.36	610.43	131.38	19.66
125946 HOURS	STD DEV	717.23	205.58	53.09	11.45
	SKEWNESS	1.87	1.50	1.62	2.23

	COMBAT	4.0G	5.0G	6.0G	7.0G
103 AIRCRAFT	MEAN	1074.97	372.62	92.68	17.22
27936 HOURS	STD DEV	193.19	101.22	41.20	15.20
	SKEWNESS	.06	.97	3.20	5.50

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
88 AIRCRAFT	MEAN	1551.79	453.60	92.16	15.17
26217 HOURS	STD DEV	451.22	138.34	35.57	9.01
	SKEWNESS	.49	.04	.50	1.61

	COMBAT	4.0G	5.0G	6.0G	7.0G
52 AIRCRAFT	MEAN	1334.99	460.44	118.91	19.35
18501 HOURS	STD DEV	373.38	123.04	28.68	8.02
	SKEWNESS	3.39	.45	.60	1.58

ALL DATA

MODEL DF-8F

13 AIRCRAFT 9599 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
13 AIRCRAFT	MEAN	405.48	91.31	11.23	.82
9599 HOURS	STD DEV	271.17	85.23	15.41	1.65
	SKEWNESS	.49	.76	1.93	1.35

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL F-8H

87 AIRCRAFT 85490 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
87 AIRCRAFT	MEAN	1664.03	519.64	101.80	13.61
72270 HOURS	STD DEV	557.82	191.35	46.31	9.47
	SKEWNESS	.36	.78	.74	1.31

	COMBAT	4.0G	5.0G	6.0G	7.0G
45 AIRCRAFT	MEAN	711.67	197.56	41.43	6.17
13220 HOURS	STD DEV	254.48	82.47	19.81	4.49
	SKEWNESS	2.35	2.77	2.28	1.32

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 12-76

MODEL F8K

74 AIRCRAFT 41773 HOURS

NAVY

	TRAINING	4.0 G	5.0 G	6.0 G	7.0 G
74 AIRCRAFT	MEAN	1659.73	518.96	111.98	13.66
41660 HOURS	STD DEV	745.33	247.92	60.18	9.15
	SKEWNESS	1.63	2.37	3.61	1.41

	COMBAT	4.0 G	5.0 G	6.0 G	7.0 G
3 AIRCRAFT	MEAN	4194.50	1576.92	208.63	24.88
113 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

MARINE

	TRAINING	4.0 G	5.0 G	6.0 G	7.0 G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0 G	5.0 G	6.0 G	7.0 G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL F-8L

36 AIRCRAFT 9856 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
36 AIRCRAFT	MEAN	1711.41	498.06	122.95	19.19
9856 HOURS	STD DEV	427.64	204.07	66.52	13.14
	SKEWNESS	.81	.84	1.31	1.17

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL EF-10B

16 AIRCRAFT 9853 HOURS

NAVY

	TRAINING	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	3.0G	4.0G	5.0G	6.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	3.0G	4.0G	5.0G	6.0G
14 AIRCRAFT	MEAN	16.24	.00	.00	.00
7526 HOURS	STD DEV	10.06	.00	.00	.00
	SKEWNESS	-.59	.00	.00	.00

	COMBAT	3.0G	4.0G	5.0G	6.0G
10 AIRCRAFT	MEAN	45.06	2.22	.00	.00
2327 HOURS	STD DEV	20.68	4.09	.00	.00
	SKEWNESS	2.16	2.52	.00	.00

ALL DATA

MODEL F-11A

36 AIRCRAFT 22538 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
36 AIRCRAFT	MEAN	2796.39	593.37	80.02	10.38
22538 HOURS	STD DEV	916.87	259.16	60.36	10.36
	SKEWNESS	1.30	1.37	3.46	3.50

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA
1-62 THRU 12-76

MODEL WP3A

4 AIRCRAFT 10059 HOURS

NAVY

	TRAINING	2.0 G	2.5 G	3.0 G	3.5 G
4 AIRCRAFT	MEAN	2.65	.11	.11	.00
10059 HOURS	STD DEV	1.56	.30	.30	.00
	SKEWNESS	.31	.62	.62	.00

	COMBAT	2.0 G	2.5 G	3.0 G	3.5 G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0 G	2.5 G	3.0 G	3.5 G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0 G	2.5 G	3.0 G	3.5 G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL S-2D

67 AIRCRAFT 59015 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
67 AIRCRAFT	MEAN	33.25	7.71	1.77	.74
58445 HOURS	STD DEV	34.30	9.23	5.36	4.85
	SKEWNESS	1.72	1.98	6.51	7.25

	COMBAT	2.0G	2.5G	3.0G	3.5G
8 AIRCRAFT	MEAN	25.35	2.10	.00	.00
570 HOURS	STD DEV	**	**	**	**
	SKEWNESS	**	**	**	**

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL S-2E

230 AIRCRAFT 598341 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
230 AIRCRAFT	MEAN	71.20	12.72	2.91	1.05
569460 HOURS	STD DEV	265.44	42.40	7.19	3.56
	SKEWNESS	5.23	8.57	2.30	2.56

	COMBAT	2.0G	2.5G	3.0G	3.5G
65 AIRCRAFT	MEAN	40.67	7.47	1.14	.42
28881 HOURS	STD DEV	67.96	7.95	1.70	1.33
	SKEWNESS	5.07	2.05	2.66	5.00

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL S-2G

48 AIRCRAFT 56173 HOURS

NAVY

	TRAINING	2.0G	2.5G	3.0G	3.5G
48 AIRCRAFT	MEAN	48.11	7.97	2.54	1.27
56173 HOURS	STD DEV	117.63	14.88	6.79	3.89
	SKEWNESS	5.18	2.04	2.57	2.71

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	2.0G	2.5G	3.0G	3.5G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

ALL DATA

MODEL T-2A

147 AIRCRAFT 584869 HOURS

NAVY

	TRAINING	4.0G	5.0G	6.0G	7.0G
147 AIRCRAFT	MEAN	591.14	44.72	4.84	.89
584869 HOURS	STD DEV	446.55	58.91	6.48	2.09
	SKEWNESS	.74	1.99	1.83	2.81

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

MARINE

	TRAINING	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

	COMBAT	4.0G	5.0G	6.0G	7.0G
0 AIRCRAFT	MEAN	*	*	*	*
0 HOURS	STD DEV	*	*	*	*
	SKEWNESS	*	*	*	*

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX B

THE DETERMINATION OF SAMPLE STATISTICS FOR COUNTING ACCELEROMETER DATA

APPENDIX B

Subj: The Determination of Sample Statistics for Counting Accelerometer Data

Ref: (a) Browlee, K.A., "Statistical Theory and Methodology in Science and Engineering," Wiley 1965, pp. 358-359
(b) Dixon & Massey, Introduction to Statistical Analysis, McGraw-Hill, Second Edition, 1957, pp. 194-195

1. The purpose of this appendix is to describe the methods used at NAVAIRDEVCEN in calculating statistics describing counting accelerometer data. The subsequent outlined sequence is repeated for each aircraft model, for each mission category, and for each g-level where there is sufficient data.

2. These are the methods used for determining sample statistics. Consider a scatter diagram of cumulative counts (at any g-level) vs. flight hours,

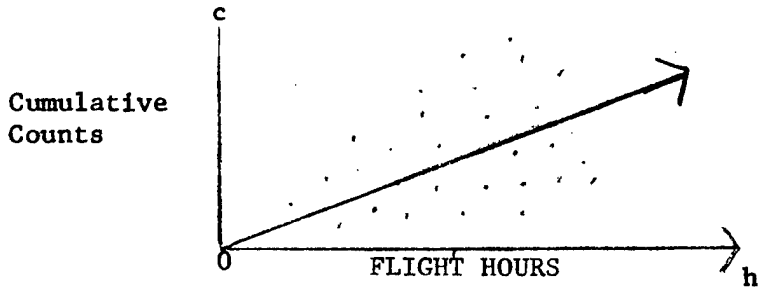

Figure 1

where each dot represents the cumulative counts and flight hours accrued by an individual serial number which is flying or has flown.

Let h_i be the total quality control accepted flight hours for the i^{th} plane (i=1, 2----N)

Let c_i be the cumulative counts during the h_i hours for the i^{th} plane (i=1, 2----N)

N is the total number of aircraft of this model and mission category for which there is recorded information.

Then

(1) $$b = \frac{\sum_{i=1}^{N} c_i h_i}{\sum_{i=1}^{N} h_i^2}$$ where b is slope of line (Figure 1) through origin fitted by least squares.

(2) $\bar{x} = 1000b$ estimated mean load exceedances at 1000 hours

(3) $\bar{h} = \frac{\sum_{i=1}^{N} h_i}{N}$ average flight hours

(4) $\hat{\sigma}^2_{ch} = \frac{\sum_{i=1}^{N} (c_i - bh_i)^2}{N-1}$ estimator of the population standard error squared of the regression

$\hat{\sigma}_{ch} = \sqrt{\hat{\sigma}^2_{ch}}$ estimator of the population standard error of the regression

(5) $S = \sqrt{1000\ \hat{\sigma}^2_{ch} / \bar{h}}$ estimated standard deviation (counts at 1000 hours) of the load exceedances for each g-level

(6) $A_3 = \frac{\sum_{i=1}^{N} (c_i - bh_i)^3}{N\ \hat{\sigma}^3_{ch}}$ estimated skewness

3. The following is the explanation and justification for these methods:

Aircraft which do not have any flight hours must have zero counts; therefore, the line in figure 2 must go through (0,0). Brownlee (reference (a)) describes the methods for fitting a least squares line through the origin (0,0). The slope of this line is the estimated mean exceedance rate (per hour). Multiplying this rate by 1000 will result in exceedances at 1000 hours (equation (2)). Multiplying b by any other h number of hours will result in mean exceedances at h hours.

If the data in figure 1 were separated into flight hour intervals (see figure 2) and the standard error in each interval were plotted against average flight hours (see figure 3) in that interval, the resultant curve is assumed to have the square root functional form.* Due to limitations in sample size, these individual $\hat{\sigma}$'s could not be determined accurately; thus, it was necessary to calculate a single $\hat{\sigma}_{ch}$ for all h combined and apply it at $\bar{h}$.** Equation (5) uses figure 3 to convert $\hat{\sigma}_{ch}$ at $\bar{h}$ to S at 1000 hours.

* This is partially justified by the fact that the variance of a sum of independent random variables is equal to the sum of the independent variances. Unreported statistical tests performed at NAVAIRDEVCEN show that figure 3 is a reasonable fit to actual data. It should be noted that the $\hat{\sigma}$'s in figure 2 are estimated by equation (4), but each $\hat{\sigma}$ was calculated using the data points in the respective interval.

**The estimated standard error $\hat{\sigma}_{ch}$ is used as the standard error of estimate for a hypothetical distribution of planes all having $\bar{h}$ hours. This follows from work in reference (b).

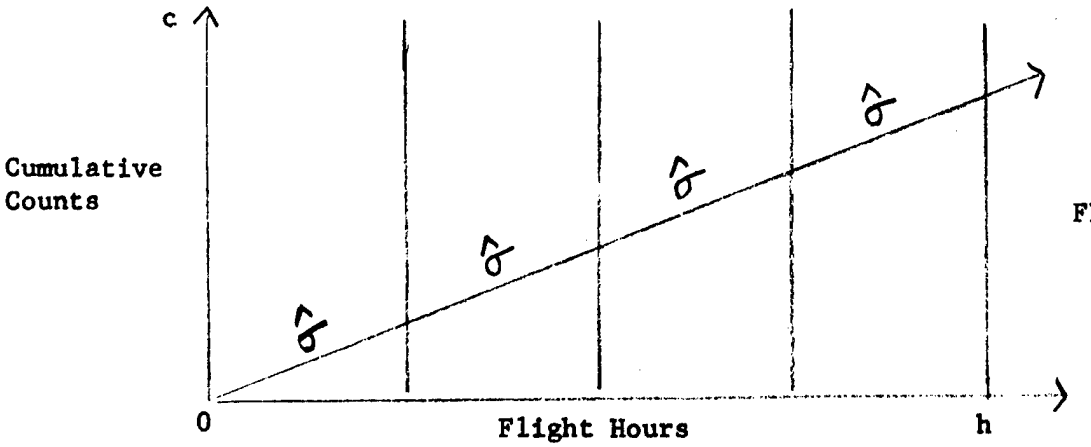

FIGURE 2

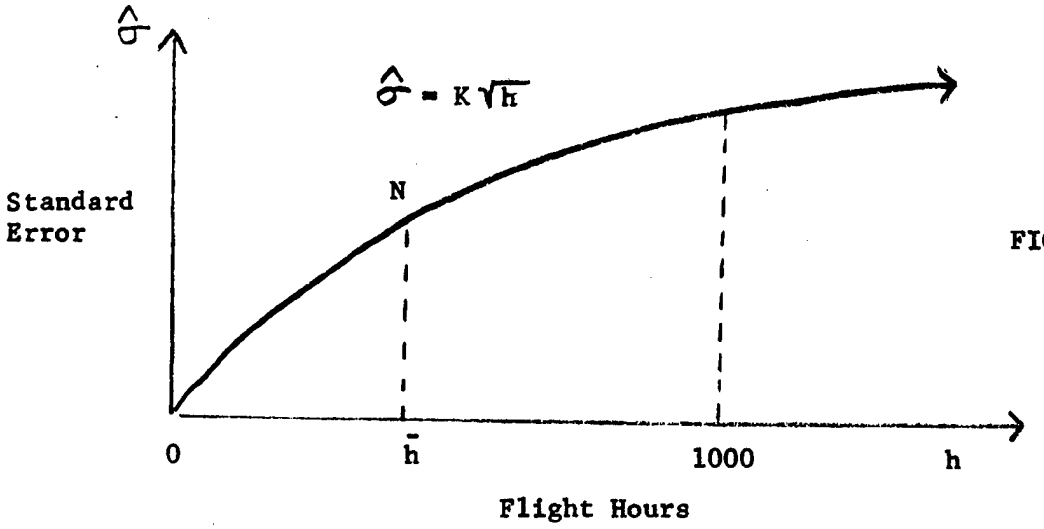

FIGURE 3

If one wanted the standard error at some other value of hours h, he would simply replace 1000 in equation (5) by that value of hours h, and the appropriate standard error would result.

Skewness A_3 is computed in equation (6). This measure indicates whether more airplane load exceedances are above the mean line or below the mean line. If:

$A_3 < 0$	More load exceedances are above mean line than below
$A_3 = 0$	Equal number of load exceedances above and below mean
$A_3 > 0$	More load exceedances are below mean line than above

(Strictly speaking a distribution is symmetrical only if all its odd moments are zero; however, the above statement is approximately true.)

4. For ease of computation, equation (4) can be expanded as follows:

$$(N-1)\,\hat{\sigma}_{ch}^2 = \sum_{i=1}^{N}(c_i - bh_i)^2$$

$$(N-1)\,\hat{\sigma}_{ch}^2 = \sum_{i=1}^{N}(c_i^2 - 2bc_ih_i + b^2h_i^2)$$

$$(7)\quad (N-1)\,\hat{\sigma}_{ch}^2 = \sum_{i=1}^{N} c_i^2 - 2b\sum_{i=1}^{N} c_ih_i + b^2\sum_{i=1}^{N} h_i^2$$

but

$$b = \frac{\sum_{i=1}^{N} c_ih_i}{\sum_{i=1}^{N} h_i^2}$$

and (7) can be reduced to

$$(N-1)\,\hat{\sigma}_{ch}^2 = \sum_{i=1}^{N} c_i^2 - 2b\sum_{i=1}^{N} c_ih_i + b\,\frac{\sum_{i=1}^{N} c_ih_i \sum_{i=1}^{N} h_i^2}{\sum_{i=1}^{N} h_i^2}$$

then

$$(8)\quad \hat{\sigma}_{ch}^2 = \left(\sum_{i=1}^{N} c_i^2 - b\sum_{i=1}^{N} c_ih_i\right) \Big/ (N-1)$$

Equation (8) will be used in lieu of equation (4) in determining $\hat{\sigma}_{ch}^2$.

5. An example using training Navy data, 12 airplanes 4.0G level:

Number	Counts (c_i)	Hours (h_i)
1	1567	1341.7
2	649	618.2
3	1114	1100.8
4	5	27.3
5	768	691.7
6	23	139.6
7	396	555.1
8	718	831.3
9	854	839.1
10	536	695.4
11	910	775.3
12	160	233.0

The following are tabulated:

$$\sum_{i=1}^{N} h_i = 7848.5$$

$$\sum_{i=1}^{N} c_i = 7700$$

$$\sum_{i=1}^{N} c_i h_i = 6913341.6$$

$$\sum_{i=1}^{N} h_i^2 = 6735017.87$$

$$\sum_{i=1}^{N} c_i^2 = 7250716.00$$

$$\sum_{i=1}^{N} (c_i - bh_i)^3 = -7082690$$

and are used in the following equations:

(1) $b = \frac{6913341.6}{6735017.87} = 1.02647$ cts. per hr.

(2) $\bar{x} = 1000\ (1.02647) = 1026.47$ cts. at 1000 hours

(3) $\bar{h} = \frac{7848.5}{12} = 654.04$ hours

(8) $\hat{\sigma}_{ch}^2 = \frac{7250716 - 1.02647\ (6913341.6)}{11} = 14034 \qquad \hat{\sigma}_{ch} = 118.5$

(5) $S = \sqrt{1000\ (14034)/654} = 146.46$ cts. at 1000 hours.

(6) $A_3 = \frac{-7082690}{12\ (118.5)^3} = -.36$

THIS PAGE INTENTIONALLY LEFT BLANK

DISTRIBUTION LIST (Concluded)

REPORT CONTROL SYMBOL NADC 13920-2

	No. of Copies
CNATRA (Code 511).	1
Commander, Naval Air Reserve, Naval Air Station, Glenview, IL	1
NRL, Washington, DC.	1
Naval Aviation Logistics Center, Patuxent River, MD.	1
NAVPLANTREPO, Bethpage, NY	1
NAVPLANTREPO, Burbank, CA.	1
NAVPLANTREPO, Columbus, OH .	1
NAVPLANTREPO, Dallas, TX . .	1
NAVPLANTREPO, Long Beach, CA	1
AFPLANTREPO, St. Louis, MO .	1
ASD, WPAFB, OH (Code ENFSR).	2
AFFDL, WPAFB, OH (Code FBE).	1
National Aviation Facilities Atlantic City, NJ (Code RD	1
DDC.	12
Boeing Co., Renton, WA (Attr	1
Grumman Aerospace Corporatic	1
Lockheed Aircraft Corporatic	1
Ling-Temco-Vought Corporatic	2
(Attn: L. Boswell)	
(Attn: J. Pimm-Code 2-53	
McDonnell Douglas Corporati	
Library.	1
McDonnell Douglas Corporati	1
(Attn: G. Parker)	
Rockwell International Corp	1
(Attn: J. J. Gruff)	
Battelle Memorial Institut	1
Brooks AFB, School of Avia	1
Technology, Inc., Dayton,	2
Naval Post Graduate School	1
Naval Air Systems Command	2

Date Due

U 840 0394

N.A.D.C.
NADC-13920-2

DATE DUE	BORROWER'S NAME

NAVAL GENERAL LIBRARIES
Chief of Naval Education
and Training

NAVEDTRA 5070/2 (Rev. 9-80) S/N 0115-LF-050-7022